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10/574,231	08/31/2006	Ulrike Schulz	P29301	2144
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GREENBLUM & BERNSTEIN, P.L.C. 1950 ROLAND CLARKE PLACE RESTON, VA 20191				LEA, CHRISTOPHER RAYMOND
ART UNIT		PAPER NUMBER		
		1619		
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No.	Applicant(s)	
	10/574,231	SCHULZ ET AL.	
	Examiner	Art Unit	
	Christopher R. Lea	1619	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 06 May 2009.

2a) This action is **FINAL**. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 34-57 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) Claim(s) _____ is/are allowed.

6) Claim(s) 34-57 is/are rejected.

7) Claim(s) _____ is/are objected to.

8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All b) Some * c) None of:

1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. _____.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413)
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	Paper No(s)/Mail Date. _____ .
3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date <u>See Continuation Sheet</u> .	5) <input type="checkbox"/> Notice of Informal Patent Application
	6) <input type="checkbox"/> Other: _____.

Continuation of Attachment(s) 3). Information Disclosure Statement(s) (PTO/SB/08), Paper No(s)/Mail Date :5/6/2009, 6/22/2009, & 7/2/2009.

DETAILED ACTION

This application is a 371 (national stage application) of PCT/EP05/051068.

Receipt of Amendments/Remarks filed on May 6, 2009, is acknowledged. In response to Non-final office action dated January 8, 2009, applicant canceled claims 10-33 and added new claims 34-57. Claims 34-57 are pending. Claims 34-57 are under examination.

Rejections and/or objections not reiterated from previous office actions are hereby withdrawn. The following rejections and/or objections are either reiterated or newly applied. All new rejections applied have been necessitated by applicant's amendment to the claims. They constitute the complete set presently being applied to the instant application.

Information Disclosure Statement

1. The information disclosure statement(s) (IDS) submitted on May 6, June 22, and July 2, 2009, were filed after the mailing date of the first office action on the merits. The submission is in compliance with the provisions of 37 CFR 1.97 & 1.98. Accordingly, the information disclosure statements have been considered by the examiner.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 42, 43, & 45 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 42 and 43 recite "up to 25%" and "up to 20%", respectively, for the amount component (a) in the composition. This is a broadening of the claimed range of "1 to 35%" in claim 41, from which claims 42 and 43 depend. The limitations "up to 25%" and "up to 20%" include embodiments containing 0, 0.01%, and less than 1%, which broaden the claimed range of "1 to 35%". Similarly, the range "up to 8%" in claim 45 broadens the claimed range of "0.1% to 10%" in claim 44.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 49-51, 53, & 54 are rejected under 35 U.S.C. 102(b) as being anticipated by Rubino (US Patent 3,991,176).

Claims 49-51: Rubino discloses a clear formulation that comprises an antiperspirant active ingredient (Chlorhydrol, i.e. aluminum chlorohydrate), an α -hydroxycarboxylic acid (citric acid) and water (example IX, column 10, lines 1-9).

Claim 53: Rubino discloses a formulation (after drying and reconstitution) that has approximately 8.5% aluminum chlorohydrate active agent (example IX, column 10,

lines 1-18). Rubino discloses a formulation (after drying and reconstitution) that has approximately 2.5% α -hydroxycarboxylic acid (example IX, column 10, lines 1- 18)

Claim 54: Rubino discloses a formulation where the ratio by weight of antiperspirant active ingredients to α -hydroxycarboxylic acid is approximately 7:1 (example IX, column 10, lines 1-18).

Response to Arguments – 35 U.S.C. § 102(b)

6. Applicant's arguments filed May 6, 2009, have been fully considered but they are not persuasive. Applicant argues that the use of "consisting" in (a) of claim 49 prohibits the presence of zirconium antiperspirant agents, hence making Rubino unsuitable to anticipate the independent claim. This is not persuasive for two reasons. First, Rubino teaches a composition that contains aluminum chlorohydrate, water, and an α -hydroxycarboxylic acid (example IX, column 10, lines 1-9), i.e. before the zirconium is added, which reads on the independent claim. Second, since applicant only uses consisting in a component of the composition, the composition as a whole is not prohibited from containing a second non-aluminum active agent. The "comprising" language of the composition as a whole is controlling, and allows for a second active agent.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

8. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

9. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

10. Claims 34-49, 52, & 55-57 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rubino (US Patent 3,991,176) in view of Gross (US Patent 7,189,406) and Bhakoo et al. (US PreGrant Publication 2003/0059396) as evidenced by Hei et al. (US Patent 6,593,283).

Applicant claims

Applicant claims a cosmetic or dermatological formulation which is transparent and comprises an antiperspirant, α -hydroxycarboxylic acid and water.

**Determination of the scope and content of the prior art
(MPEP 2141.01)**

Rubino teaches, as a whole, aluminum/zirconium antiperspirant compositions that contain hydroxycarboxylic acids (abstract).

Claims 34-36: Rubino teaches a clear formulation (for use as antiperspirant) that comprises an antiperspirant active ingredient (Chlorhydrol, aluminum chlorohydrate), an α -hydroxycarboxylic acid (citric acid) and water (example IX, column 10, lines 1-18).

Claim 37: Rubino teaches that the active ingredient may be a complex of an aluminum salt with another metal salt such as zirconium, i.e. an aluminum zirconium salt (column 4, lines 8-16).

Claim 38-40: Rubino teaches a formulation where the ratio by weight of antiperspirant active ingredients to α -hydroxycarboxylic acid is approximately 7:1 (example IX, column 10, lines 1-18).

Claims 41-45: Rubino teaches a formulation (after drying and reconstitution) that has approximately 17% antiperspirant active agent and approximately 2.5% α -hydroxycarboxylic acid (example IX, column 10, lines 1-18).

Claim 46: Rubino teaches using perfume and alcohol in the antiperspirant formulations of the invention (table I, column 16).

Claims 49 & 52: Rubino teaches a clear formulation (for use as antiperspirant) that comprises an antiperspirant active ingredient (Chlorhydrol, aluminum

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chlorohydrate), an α -hydroxycarboxylic acid (citric acid) and water (example IX, column 10, lines 1-18). Since claim 52 depends from claim 49, rejection of claim 10 under 35 USC 103 is also appropriate.

Claim 55 & 56: Rubino teaches a clear formulation (for use as antiperspirant) that comprises an antiperspirant active ingredient (Chlorhydrol, aluminum chlorohydrate), an α -hydroxycarboxylic acid (citric acid) and water (example IX, column 10, lines 1-18). Rubino teaches a formulation (after drying and reconstitution) that has approximately 17% antiperspirant active agent and approximately 2.5% α -hydroxycarboxylic acid, a ratio by weight of antiperspirant active ingredients to α -hydroxycarboxylic acid of approximately 7:1 (example IX, column 10, lines 1-18).

Claims 47, 48, & 57: As to the claimed presence of a defined yield point and form of a hydrogel, where the claimed and prior art products are substantially identical in structure or composition, or are produced by substantially identical processes, a *prima facie* case of obviousness has been established. Further, The U.S. Patent Office is not equipped with analytical instruments to test prior art compositions for the infinite number of ways that a subsequent applicant may present previously unmeasured characteristics. When as here, the prior art appears to contain the exact same ingredients and applicant's own disclosure supports the suitability of the prior art composition as the inventive composition component, the burden is properly shifted to applicant to show otherwise. Absent evidence to the contrary, the prior art composition must possess the claimed presence of a defined yield point and form of a hydrogel since it is substantially identical to the claimed composition (See MPEP § 2112.01).

**Ascertainment of the difference between the prior art and the claims
(MPEP 2141.02)**

The difference between the teachings of Rubino and the instant claims is that Rubino does not use mandelic acid as the α -hydroxycarboxylic acid. This deficiency in Rubino is cured by the teachings of Gross.

Gross teaches, as a whole, skin treatment compositions (abstract).

Gross teaches mandelic acid is a preferred α -hydroxycarboxylic acid for stimulating skin-renewal (column 3, lines 56-67).

**Finding of *prima facie* obviousness
Rationale and Motivation (MPEP 2142-2143)**

It would have been *prima facie* obvious to one of ordinary skill in the art at the time the claimed invention was made to utilize mandelic acid with its skin-renewing effects as taught by Gross as the α -hydroxycarboxylic acid in the antiperspirant formulations taught by Rubino and produce the instant invention. The skilled artisan would have been motivated to use mandelic acid because Gross teaches mandelic acid in a list of functionally equivalent α -hydroxycarboxylic acids with property of stimulating skin-renewal. Therefore the skilled artisan would have recognized that mandelic acid is both suitable for use in the topically applied antiperspirant of Rubino and equivalent to the α -hydroxycarboxylic acids already known to be employable in the Rubino invention. Alternatively, the skilled artisan would have been motivated to use mandelic acid because Bhakoo et al. teach that malodor is the result of microorganisms the

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biotransform sweat to produce volatile odoriferous compounds (paragraph 2) and that generally deodorants work through an antimicrobial ability to decrease the population of microorganisms (paragraph 6). Since Hei et al. teach that mandelic acid possess antimicrobial properties (column 10, lines 22-63), it would have been obvious to use mandelic acid as the α -hydroxycarboxylic acid in the antiperspirant/deodorant of Rubino especially since Gross teaches mandelic acid is acceptable for topical application to the skin.

From the teachings of the references, it is apparent that one of ordinary skill in the art would have had a reasonable expectation of success in employing mandelic acid in the antiperspirant formulation of Rubino and producing the claimed invention, because mandelic acid is art recognized as being functionally equivalent with citric acid and other known alpha-hydroxy acids. Therefore, the invention as a whole would have been *prima facie* obvious to one of ordinary skill in the art at the time the invention was made, as evidenced by the references, especially in the absence of evidence to the contrary.

11. Claims 34-57 are rejected under 35 U.S.C. 103(a) as being unpatentable over Guskey et al. (US Patent 5,776,494).

Applicant claims

Applicant claims a cosmetic or dermatological formulation which is transparent and comprises an antiperspirant, α -hydroxycarboxylic acid (in some embodiments mandelic acid) and water.

**Determination of the scope and content of the prior art
(MPEP 2141.01)**

Guskey et al. teach, as a whole, gel carriers for topical skin active agents (abstract & column 2, lines 9-30).

Claim 34-37, 49-52, & 55: Guskey et al. teach a topical pharmaceutical composition comprising at least one active agent, a gelling agent, and an anhydrous solvent (column 2, lines 35 through column 3, line 29). Among the active agents, Guskey et al. teach aluminum and aluminum-zirconium chlorohydrate (column 7, lines 30-45) and mandelic acid (column 5, line 48) and further teaches that mixtures of active agents may be used (column 7, lines 46-7). Though Guskey et al. teach that an anhydrous solvent is used, Guskey et al. also teach that the invention may contain up to 5% water (column 10, lines 29-35). As to the limitation that the composition be transparent, compositions of identical chemical composition must have identical properties. In addition, Guskey et al. teach that the invention leaves a reduced visible residue (column 2, line 19-24).

Claims 38-45, 53, 54, & 56: Guskey et al. teach that the active agents in the composition are present in a safe and effective amount (column 2, lines 35-36). It is certainly within the purview of the skilled artisan to determine this safe and effective amount, which will necessarily be different depending on the different active agent or agents selected, through routine experimentation. Similarly this determination will establish the ratio of the different active agents. In the absence of the factually-supported objective evidence demonstrating the criticality of the claimed ranges of

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component percentage and active agent ratio, it would have been obvious to determine these ratios empirically.

Claim 46: Guskey et al. teach that deodorant active agents are suitable for use in the composition of the invention (column 7, lines 7-29).

Claims 47, 48, & 57: As to the claimed presence of a defined yield point and form of a hydrogel, where the claimed and prior art products are substantially identical in structure or composition, or are produced by substantially identical processes, a *prima facie* case of obviousness has been established. Further, The U.S. Patent Office is not equipped with analytical instruments to test prior art compositions for the infinite number of ways that a subsequent applicant may present previously unmeasured characteristics. When as here, the prior art appears to contain the exact same ingredients and applicant's own disclosure supports the suitability of the prior art composition as the inventive composition component, the burden is properly shifted to applicant to show otherwise. Absent evidence to the contrary, the prior art composition must possess the claimed presence of a defined yield point and form of a hydrogel since it is substantially identical to the claimed composition (See MPEP § 2112.01).

**Ascertainment of the difference between the prior art and the claims
(MPEP 2141.02)**

The difference between the teachings of Guskey et al. and the instant claims is that Guskey et al. do not exemplify an embodiment that contains the specific active agents in the claimed ratios.

**Finding of *prima facie* obviousness
Rationale and Motivation (MPEP 2142-2143)**

It would have been *prima facie* obvious to one of ordinary skill in the art at the time the claimed invention was made to formulate a composition containing an antiperspirant and mandelic acid as taught by Guskey et al. and produce the instant invention. The skilled artisan would have been motivated to make a topically-applied skin-treating composition with antiperspirant agents and mandelic acid because Guskey et al. teaching mandelic acid and antiperspirant agents are suitable for use as active agents in a topical composition and suggests employing mixtures of active agents. Reading a list and selecting a known compound to meet known requirements is no more ingenious than selecting the last piece to put in the last opening in a jig-saw puzzle (see MPEP § 2144.07).

From the teachings of the references, it is apparent that one of ordinary skill in the art would have had a reasonable expectation of success in formulating a composition containing an antiperspirant and mandelic acid as taught by Guskey et al. and producing the claimed invention. Therefore, the invention as a whole would have been *prima facie* obvious to one of ordinary skill in the art at the time the invention was made, as evidenced by the references, especially in the absence of evidence to the contrary.

In light of the forgoing discussion, one of ordinary skill in the art would have concluded that the subject matter defined by the instant claims would have been obvious within the meaning of 35 USC 103(a).

Response to Arguments – 35 U.S.C. § 103(a)

12. Applicant's arguments filed May 6, 2009, have been fully considered but they are not persuasive. The examiner reiterates his arguments (from the 102 section above) in response to applicant's arguments concerning the "consisting" language. Applicant argues that Rubino teaches away from mandelic acid (an aromatic acid) by reciting a list of hydroxycarboxylic acid which contains only non-aromatic acids is not convincing. In order for a reference to "teach away" it must disparage or otherwise teach the unsuitability of an approach. Rubino contains no such teaching, and the fact that the preferred species listed are non-aromatic means that an aromatic acid is merely a non-preferred embodiment. Non-preferred embodiments do not teach away. Applicant's argument that the skilled artisan would not be motivated to combine the teachings of Rubino and Gross is not found convincing. Applicant argues that the skin appearance-improving properties of mandelic acid taught by Gross would not be desired in an under-arm antiperspirant/deodorant. First, the examiner believes that applicant has underestimated the human vanity and the extremes to which people go in the pursuit of beauty. Second, the examiner cited Gross mainly to show that mandelic acid is an α -hydroxycarboxylic acid which is suitable for topical application to human skin and only secondarily that it provides improvements in skin-appearance. Further in response to applicant's argument, the examiner has provided alternative reasoning to use mandelic acid in an antiperspirant composition.

The expected result remains the same, a clear antiperspirant/deodorant is made in the absence of evidence to the contrary. No unexpected results have been

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presented. Applicant's arguments are not persuasive, and the rejection under 35 U.S.C. §103(a) is maintained.

Double Patenting

13. Applicant is advised that should claim 35 be found allowable, claim 52 will be objected to under 37 CFR 1.75 as being a substantial duplicate thereof. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

14. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

15. Claims 34-36, 38-45, & 47 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 46-56 & 64 of copending Application No. 10/574,219 (the '219 application). Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims of the '219 application are species of the instant claims differing only in the claims of the '219 application more narrowly defining the antiperspirant ingredient. Since the claims of the '219 application are in a species relation to the instant claims, the instant claims are anticipated by the claims of the '219 application.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

16. Claims 34-36 & 38-45 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 46-48, 54-61, & 63 of copending Application No. 10/574,230 (the '230 application). Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims of the '230 application are species of the instant claims differing only in the claims of the '230 application more narrowly defining the form of the formulation as a microemulsion. Since the claims of the '230 application are in a species relation to the instant claims, the instant claims are anticipated by the claims of the '230 application.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

17. Claims 34-36, 38-45, & 47 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 43, 51-53, 56-59, 64, 75, & 81 of copending Application No. 11/586,585 (the '585 application). Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims of the '585 application are species of the instant claims differing only in the addition of limitation concerning water content and the presence of particles in the formulation. Since the claims of the '585 application are in a species relation to the instant claims, the instant claims are anticipated by the claims of the '585 application.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Conclusion

Claims 34-57 are rejected. No claims are allowed.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher R. Lea whose telephone number is (571) 270-5870. The examiner can normally be reached on Mon-Fri 8:00-4:30 ET.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Johann Richter can be reached on (571)272-0646. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

CRL

/Ernst V Arnold/
Primary Examiner, Art Unit 1616